

Clostridium difficile (C. difficile)

What is Clostridium difficile (C. difficile or C. diff)?

Clostridium difficile (or C. difficile) is a type of bacteria (germ) that causes diarrhea and is sometimes found naturally in the gut of humans. C. difficile bacteria can also produce spores (dormant bacteria) that make the organism very difficult to eliminate in the environment.

Who gets C. difficile?

Individuals at the highest risk for *C. difficile* infection include those on antibiotic medications, persons with underlying gastrointestinal conditions or prior gastrointestinal surgery, individuals who are frequently hospitalized, and those who have weakened immune systems or other chronic underlying health conditions. When a person takes antibiotics, good germs that protect against infection are destroyed for several months. During this time, people can get sick if they are exposed to *C. difficile* because the body cannot fight off the *C. difficile* germs.

How is *C. difficile* spread?

The bacteria are passed in feces (stool) and then can contaminate items or surfaces. If a person touches a contaminated item or surface, hands are then contaminated. The bacteria are spread if contaminated hands touch something that another person puts in the mouth. Direct contact with contaminated items (e.g., medical equipment) or environmental surfaces (e.g., toilets, bath tubs) can also spread the bacteria. It is important to wash hands often and properly and keep the environment clean; *C. difficile* spores can remain on surfaces for a long time.

What are the symptoms of *C. difficile* infection?

Many people carry *C. difficile* germs in their bodies without any symptoms. This is called being "colonized". A person may be colonized for a long time before getting sick or may never get sick. The most common symptoms of a *C. difficile* infection include watery diarrhea, fever, loss of appetite, nausea, and belly pain and tenderness. More serious infections can also develop in the intestine.

How soon after exposure do symptoms appear?

This is unknown.

How is *C. difficile* infection diagnosed?

Special laboratory tests of feces (stool) can be used to diagnose *C. difficile* infection.

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What is the treatment for C. difficile infections?

In some patients, stopping antibiotic treatment will help resolve symptoms of infection within two to three days. It also may be possible to treat a *C. difficile* infection with a more powerful and appropriately targeted antibiotic. In some severe cases, a person might have to have surgery to remove the infected part of the intestine.

How can C. difficile infection be prevented?

Use of good infection prevention practices (such as enhanced environmental cleaning, wearing a gown and gloves when caring for patients with *C. difficile*, and frequent hand hygiene by healthcare workers) can limit the spread of *C. difficile* in healthcare settings. Patients with *C. difficile* should follow all instructions given by their care providers and keep their hands clean, especially after using the bathroom. Friends or family members visiting a patient with *C. difficile* should follow the healthcare facility's recommended precautions.

How can I get more information about C. difficile?

- 1) If you have concerns about disease, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at http://www.vdh.virginia.gov/LHD/index.htm.
- 3) Visit the Centers for Disease Control and Prevention website at http://www.cdc.gov/HAI/organisms/cdiff/Cdiff infect.html .